Revision

1 Complete :-

1	If $\frac{3}{x+4}$ is a rational number , then $x \neq$ .....
2	The number that lies at half way between $\frac{1}{2}$ and $\frac{1}{3}$ is .....
3	The greatest non positive rational number is .....
4	$a \times \frac{b}{5} = \frac{a}{5}$, then a = ...
5	If $\frac{3}{4} \times y = 1$, then y = ...
6	If $x = 3$, $y = 4$ and $z = 6$, then $\frac{x}{y} - \frac{z}{x}$ = ...
7	The number that hasn't a multiplicative inverse is .....
8	The additive inverse of the number $\frac{3}{7}$ is .....
9	The additive inverse of the number $\left(-\frac{1}{5}\right)$ is .....
10	The additive inverse of the number $(-\frac{3}{4})^0$ is .....
11	The multiplicative inverse of the number $\lvert -\frac{1}{9} \rvert$ is .....
12	The multiplicative inverse of the rational number $(\frac{-2}{5})$ is .....
13	The multiplicative inverse of the number $3\frac{1}{3}$ is .....
14	The multiplicative inverse of the number $(\frac{1}{2})^0$ is .....
15	The additive inverse of the number 1 is ....., the multiplicative inverse of the number 1 is .....
16	The additive identity element in Q is ..... , the multiplicative identity in Q is .....
17	If $x + \frac{3}{x} = 4 + \frac{3}{4}$, then x = ...

18	The reminder of subtracting $\frac{3}{7}$ from $\frac{9}{21}$ is .....
19	$1\frac{1}{3}+\frac{3}{5}=$ .....
20	$-\frac{4}{11}\times$ ..... $=1$
21	$3\frac{1}{4}\times$ ..... $=1$
22	If $\frac{y}{x}=1$, then $3x-3y=$ .....
23	$0.\dot{3}$ in the form of $\frac{a}{b}=$ .....
24	If $\frac{a}{b}=\frac{1}{2}$, then $\frac{2a}{b}=$ .....
25	$\frac{2}{5}=$ ..... % 0.57 = ... % 3.5 = ... %
26	The number 1.25 in the form of $\frac{a}{b}$ is .....
27	If $\frac{a}{b}=0$, then $3ab=$ ..... (such that $b\neq 0$)
28	The additive inverse of $(\frac{-2}{3})^2$ is .....
29	If $\frac{a}{b}=60$, then $\frac{a}{3b}=$ .....
30	1 , 1 , 2 , 3 , 5 , 8 , ... , ... (in the same pattern)
31	The additive inverse of $\frac{-9}{-7}$ is .....

32 If : $\frac{x-3}{x-7}\in\mathbb{Q}$, then : $x\neq$ .....

33 $\frac{x}{24} = \frac{5}{12}$, then $x =$ .....

34 $1.\dot{2}\dot{5}$ as a rational number = ...

35 $0.5\dot{7} =$ .....

36 $\frac{1}{4}$ = ... %  $\frac{21}{1000}$ = ... %  $|-0.4|$ = ... %

The result of subtracting $2x$ from $-3x$ is .....

The increase of $-2x$ than $-5x$ is .....

The decrease of $-3ab$ than $2ab$ is .....

❷ choose the correct answer

1	$0.\dot{7}$ = ...	($\frac{7}{10}$, $\frac{7}{9}$, $\frac{7}{100}$, $\frac{7}{99}$)
2	The multiplicative inverse of the number $\frac{1}{2}$ is	(1 , -2 , 2 , 5)
3	The multiplicative inverse of the number ..... Is itself	(-1 , 0 , 2 , 3)
4	$\left\|-\frac{3}{5}\right\|$ ..... zero	(< , = , >)
5	The rational number which lies between $\frac{1}{3}$ and $\frac{2}{5}$ is	($\frac{5}{15}$, $\frac{7}{15}$, $\frac{11}{30}$, $\frac{13}{30}$)
6	$\frac{9}{x-2} \in Q$ if $x \neq$	(9 , 2 , 0 , -2)
7	The number $0.\dot{5}\,\dot{7}$ as a rational number	($\frac{5}{9}$, $\frac{19}{33}$, $\frac{3}{7}$, $\frac{2}{3}$)
8	If $\frac{x}{y} = 1$, then $2x - 2y$ = ...	(4 , 2 , 0 , 1)
9	The additive inverse of $(-2)^3$ is	(8 , -8 , 4 , 6)
10	$\frac{-3}{5} + \frac{2}{3}$ = ...	($\frac{6}{5}$, $\frac{1}{15}$, 5 , 3)
11	If $\frac{a}{b} = \frac{1}{2}$, then $2a - b$ = ...	(1 , 0 , 3 , -1)
12	Half of 2^{100} = ...	(2^{98} , 2^{99} , 4^{100} , 2^{50})
13	Which of the following lies between $\frac{7}{11}$, $\frac{7}{20}$?	($\frac{7}{10}$, $\left\|-\frac{7}{11}\right\|$, $\frac{7}{15}$, $\frac{7}{22}$)
14	The rational $\frac{x}{-3}$ is negative if x	(< 0 , > 0 , ≤ 0 , ≥ 0)
15	The number $\frac{7}{x-9}$ not a rational number if	($x = 9$, $x = 7$, $x \neq 9$, $x = -9$)
16	The smallest fraction of the following	($\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, $\frac{7}{16}$)
17	If : $\frac{x+7}{x-5} = 0$ if x = ...	(7 , -7 , 5 , -5)
18	The necessary condition to make $\frac{7}{2x-10}$ a rational number if $x \neq$	(-7 , 5 , -5 , 10)

19	The additive inverse of the number $\frac{1}{3}$ is	($\frac{3}{10}$, 0.3 , 3 , $-0.\dot{3}$)
20	If : $\frac{x}{y} = \frac{2}{3}$, then $\frac{3}{2}\frac{x}{y}$ = ...	
21	If $3a = 27$ and $ab = 1$, then b = ...	($\frac{1}{9}$, $\frac{1}{5}$, 5 , 9)
22	$0.7 + 0.\dot{3}$ = ...	(1 , 3.7 , $0.\dot{3}7$, $1\frac{1}{30}$)
23	The number of all rational numbers that exist between $\frac{2}{5}$ and $\frac{4}{5}$ is	(1 , 2 , 3 , infinite number)
24	$7x$ exceeds $-5x$ by	($12x$, $2x$, $-2x$, $-2x^2$)
25	$\frac{3x}{5} - \frac{x}{5}$ = ...	($\frac{2}{5}$, $\frac{x}{5}$, $\frac{2x}{5}$, $2x$)
26	$\frac{y^5}{y^3} + y^2$ = ... , where $y \neq 0$	(y^6 , y^5 , $2y^2$, $2y^3$)

27 Which of the following is the least rational number .....

(a) $\frac{2}{5}$ (b) $\frac{-7}{5}$ (c) $\frac{24}{23}$ (d) $\frac{-200}{201}$

28 The number of integers lying between $\frac{7}{4}$, $\frac{11}{8}$ is .....

(a) zero (b) 1 (c) 2 (d) infinite number

29 The rational number which lies between $-\frac{1}{3}$, $\frac{1}{4}$ is .....

(a) 1 (b) -1 (c) 0 (d) $\frac{1}{2}$

30 If : $a \times \frac{b}{3} = 2a$ and $b\,c = 1$, then c = ...

(a) 3 (b) 6 (c) $\frac{1}{6}$ (d) $\frac{1}{3}$

If : $a \times \frac{b}{7} = \frac{a}{7}$, then b = ...

The remainder of subtracting $\frac{3}{7}$ from $\frac{9}{21}$ equals .....

Find three rational numbers between : $\frac{1}{2}$, $\frac{1}{3}$

.....

Find 3 rational numbers lies between $\frac{2}{3}$ and $\frac{3}{7}$

.....

.....

Mr : Ahmed

Hassan

01147310927

Use the properties of addition of rational numbers to find $\frac{5}{4}+\left(\frac{-13}{5}\right)+\left(\frac{-25}{4}\right)+\frac{28}{5}$

.....

.....

If $x=\frac{1}{2}$, $y=\frac{-2}{3}$, $z=2$, then find the value of $\frac{y-z}{x}$

.....

.....

If $a=\frac{7}{4}$, $b=-\frac{1}{2}$, find the value of the expression $(a-b)\div(a+b)$

.....

.....

Use the properties of the rational numbers , find the value of

$\frac{7}{12}\times\frac{23}{45}+\frac{17}{12}\times\frac{23}{45}-2\times\frac{23}{45}$

.....

using the distributive property to find : $\frac{-3}{7}\times 8+5\times\frac{-3}{7}+\frac{-3}{7}$

.....

Mr : Ahmed
Hassan
01147310927

❶ complete:-

1	The type of the angle of measure 89° 60' is .....
2	The type of the angle of measure 179° 60' is .....
3	The type of the angle of measure 179° 59 ' 60" is .....
4	The two complementary angles are the two angles whose sum of measures is .....
5	The two supplementary angles are the two angles whose sum of measures is .....
6	The acute angle complements ..... angle and supplements ..... angle
7	The right angle complements .....angle and supplements ..... angle
8	The zero angle complements .....angle and supplements ..... angle
9	The angle whose measure is 63° complements an angle with measure ..... and supplements an angle with measure .....
10	If m (∠ A) = 125 ° , then m (reflex ∠ A) = ...
11	If the two outer sides of two adjacent angles are on the same straight line , then these two adjacent angles are .....
12	If : ∠ A complement ∠ B and ∠ C complement ∠ B , ∠ A and ∠ C are .....
13	∠A supplements ∠B and ∠ B supplements ∠C , then .....
14	If ∠A and ∠ B are two complementary angles and m (∠ A) = m (∠ B) then m (∠ A) = ...
15	If ∠X and ∠ Y are two supplementary angles and m (∠ X) = m (∠ Y) then m (∠ Y) = ...
16	The two adjacent angles formed by intersecting of a straight line and a ray with a start point on this straight line are .....
17	If the two adjacent angles are supplementary , then their outer sides .....
18	If the two adjacent angles are complementary , then their outer sides .....

19	The sum of measures of the accumulative angles at a point = ... °
20	If two straight lines intersect , then each two vertically opposite angles are .....
21	The two line segment are congruent if .....
22	Two angles are congruent if .....
23	If $\overrightarrow{BD}$ bisects $\angle ABC$ and m ($\angle ABD$) = 35° , then m ($\angle ABC$) = ...
24	The measure of each two equal supplementary angles = ...
25	If $\angle B$ complements $\angle A$, m ($\angle A$) = 80° , then m (reflex $\angle B$) = ...
26	If the ratio between two supplementary angles is 7 : 11 , then the measure of the greater angle is .....
27	If m ($\angle A$) = 2 m ($\angle B$) and $\angle A$ supplement $\angle B$, then m ($\angle A$)
28	If $\Delta ABC \equiv \Delta XYZ$, m ($\angle A$) + m ($\angle B$) = 115° , then m ($\angle Z$) = ...
29	If $\overline{AD} \equiv \overline{BC}$, then AD – BC = ...
30	If $\Delta ABC \equiv \Delta XYZ$, m ($\angle B$) = 80° , m ($\angle Z$) = 40° , then m ($\angle A$) = ...
31	If the polygon ABCDE ≡ the polygon LMNPQ , then m ($\angle PNM$) = m ($\angle$ .....)
32	If $\Delta ABC \equiv \Delta XYZ$, then AC = ...
33	If $\angle B$ complement $\angle A$ and $\angle B \equiv \angle A$, then m ($\angle B$) = ...
34	If $\angle Y$ supplement $\angle X$ and $\angle X \equiv \angle Y$, then m ($\angle X$) = ...

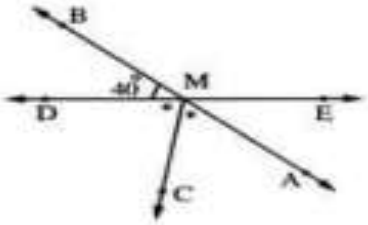
Mr : Ahmed

Hassan

01147310927

The value of x = ...

$\overleftrightarrow{AB} \cap \overleftrightarrow{DE} = \{M\}$, m (∠ AMC) = m (∠ CMD)
, m (∠ BMD) = 40°
Find : m (∠ EMA) , m (∠ DMC)



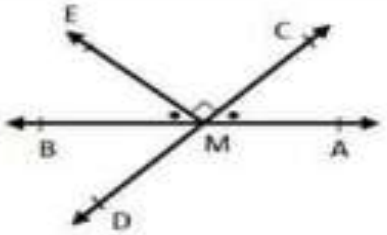
.....

.....

.....

.....

$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, m (∠ CME) = 90°,
m (∠ AMC) = m (∠ EMB)
Find: m (∠ AMC) , m (∠ BMD) , m (∠ AMD)



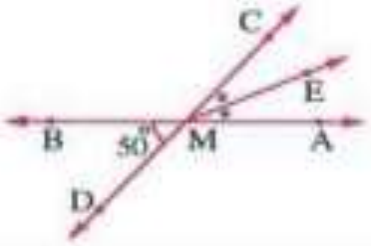
.....

.....

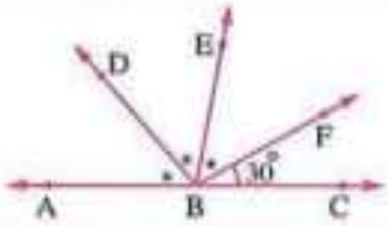
.....

.....

$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, $\overrightarrow{ME}$ bisects ∠ AMC
and m (∠ DMB) = 50°
, then m (∠ AME) = ...



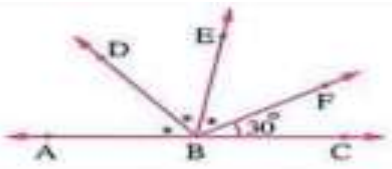
B ∈ $\overleftrightarrow{AC}$, m (∠ FBC) = 30°
and m (∠ ABD) = m (∠ DBE) = m (∠ EBF)
Find : m (∠ ABE)



$B \in \overleftrightarrow{AC}$, $m(\angle FBC) = 30°$

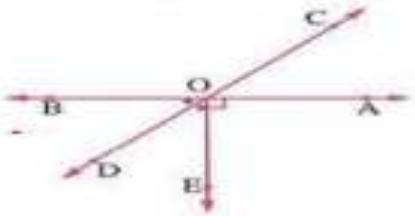
and $m(\angle ABD) = m(\angle DBE) = m(\angle EBF)$

Find : $m(\angle ABE)$



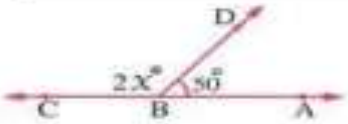
$\overrightarrow{OD}$ bisects $\angle BOE$, $\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{O\}$

, $m(\angle AOE) = 90°$ **Find :** $m(\angle AOC)$



$\overleftrightarrow{AC} \cap \overleftrightarrow{BD} = \{B\}$, $m(\angle ABD) = 50°$

, $m(\angle DBC) = 2X°$ Find in degrees the value of X

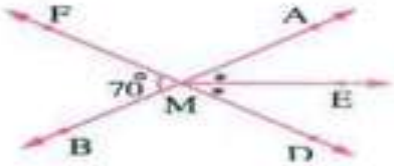


$\overleftrightarrow{AB} \cap \overleftrightarrow{DF} = \{M\}$, $\overrightarrow{ME}$ bisects $\angle AMD$

, $m(\angle FMB) = 70°$

Find : (1) $m(\angle AMF)$ (2) $m(\angle AMD)$

(3) $m(\angle DME)$



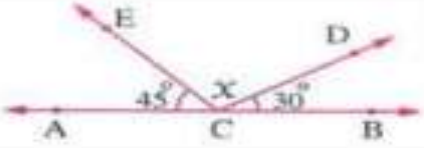
.....

.....

.....

.....

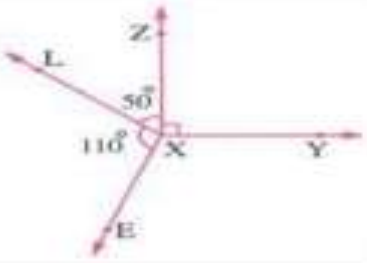
The value of $X =$ .....°



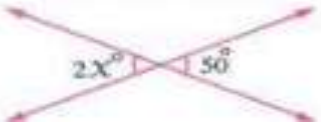
$m(\angle YXZ) = 90°$, $m(\angle ZXL) = 50°$

and $m(\angle LXE) = 110°$

Find with giving the reason : $m(\angle YXE)$



The value of x = ...



❷ choose the correct answer

1	The measure of each of two equal complementary angles equals ..... (180° , 45° , 360° , 90°)
2	If two straight lines intersect , then each two ..... angles have the same measure (vertically opposite , adjacent , alternate , corresponding)
3	If Δ ABC ≡ Δ LMN , then m (∠ ACB) = m (∠ .....) (LMN , MLN , LNM , NLM)
4	If ∠X complements ∠Y and ∠X ≡ ∠Y , then m (∠ X) = ...° (45 , 90 , 180 , 360)
5	If Δ ABC ≡ Δ XYZ , m (∠ A) + m (∠ B) = 100° , then m (∠ Z) = ...° (50 , 80 , 90 , 100)
6	The sum of measures of the accumulative angles at a point = ... (630° , 180° , 90° , 360°)
7	If Δ ABC ≡ Δ XYZ , m (∠ A) = 50° , m (∠ Y) = 60° , then m (∠ C) = ... (50° , 60° , 70° , 80°)
8	The measure of the supplement of the angle whose measure 30° = ... (60° , 180° , 90° , 150°)
9	The whose measure is more than 90° and less than 180° is ..... angle (an obtuse , an acute , a right , a straight)
10	The angle whose measure is 78° 60' is ..... angle (an obtuse , an acute , a right , a straight)
11	The type of the angle of measure 179° 61' is ..... (an obtuse , an acute , a reflex , a straight)
12	The type of the angle of measure 89° 60' is ..... (an obtuse , an acute , a right , a straight)
13	The measure of the supplement of the angle of measure 35° equals ..... (165° , 180° , 65° , 145°)

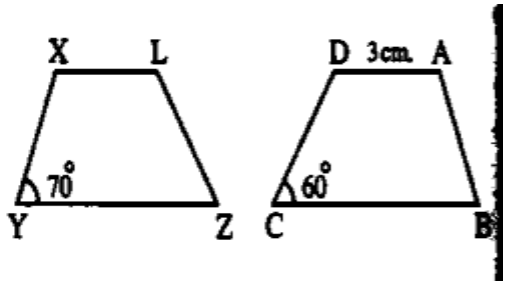
14	If $\overline{AB} \equiv \overline{CD}$ and AB = 4 cm. , then AB + 2 CD = ... Cm. (10 , 4 , 8 , 12)
15	If m ($\angle$ A) = 110° , then m (reflex $\angle$ A) = ... (70° , 360° , 250° , 150°)
16	The acute angle supplements ..... angle (an obtuse , an acute , a reflex)
17	$\overrightarrow{AB} \cup \overrightarrow{AC}$ = ... ($\overrightarrow{AB}$, $\angle$ABC , $\angle$BAC , $\emptyset$)
18	$\overline{XY}$ ..... $\overleftrightarrow{XY}$ ($\in$ or $\subset$ or $\notin$ or $\not\subset$)
19	The sum of measures of the accumulative angles at a point equals the sum of measures of ..... angles (2 right , 3 right , 4 right , 5 right)
20	The sum of measures of 6 accumulative angles at a point ..... The sum of measures of 3 accumulative angles at a point (< , > , =)
21	Two complementary angles are two angles whose sum of their measures is ..... (90° , 180° , 100° , 45°)
22	If m ($\angle$ X) + m ($\angle$ Y) = 180° , then $\angle$ X and Y are ..... (equal in measure , complementary , supplementary , adjacent)
23	If two triangles ABC and XYZ are congruent , then ..... (BC = XZ , YX = CA , ZY = CB , AB = YZ)
24	If m ($\angle$ X) = 2 m ($\angle$ Y) , $\angle$X and $\angle$Y are two supplementary angles , then m ($\angle$ Y) = ... (90° , 120° , 30° , 60°)
25	The right angle complements angle whose measure is ..... (0° , 45° , 90° , 180°)
26	Two adjacent angles formed by a straight line and a ray with a starting point on this straight line are ..... (equal in measure , complementary , supplementary , adjacent)
27	$\angle$ XYZ = YZ ..... YX (= , $\equiv$, $\cup$, $\cap$)
28	The two bisector of two adjacent supplementary angles ..... (parallel , perpendicular , coincident)

In the opposite figure :

The polygon ABCD ≡ the polygon XYZL

Find : ① The length of $\overline{LX}$ ② m (∠ B)

③ m (∠ Z)

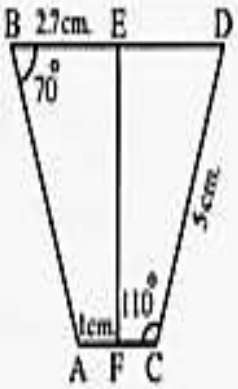


)In the opposite figure :

The polygon AFEB ≡ The polygon CFED ,

then m (∠ D) = ...° , m (∠ A) = ...°

The perimeter of the figure ABDC = ... cm.



Test 1

Total mark 10

1 Choose the correct answer from the given ones : (3 marks)

1 12% = ...

ⓐ 0.3 ⓑ 1.2 ⓒ $\frac{3}{25}$ ⓓ 0.012

2 The remainder of subtracting $\frac{1}{7}$ from $\frac{8}{7}$ equals .....

ⓐ 1 ⓑ -1 ⓒ $-\frac{9}{7}$ ⓓ $\frac{9}{7}$

3 The integer that lies between $\frac{5}{7}$ and $\frac{5}{3}$ is .....

ⓐ 1 ⓑ 3 ⓒ 4 ⓓ 5

2 Complete : (3 marks)

1 If $-\frac{4}{5} = \frac{20}{x}$, then x = ...

2 If $a + \frac{6}{7} = 0$, then a = ...

3 If the rational number $\frac{x-5}{x} = 0$, then x = ...

3 If $x = \frac{3}{8}$, $y = \frac{1}{2}$, $z = \frac{-3}{4}$ (2 marks)

Find the value of : $(x - y) + z$

4 Write three rational numbers that are equivalent to $-\frac{3}{4}$ (2 marks)

Test 2

Total mark 10

1 Choose the correct answer from the given ones : (3 marks)

1 The smallest non-negative rational number is .....

ⓐ 0.1 ⓑ $\frac{1}{2}$ ⓒ 1 ⓓ zero

2 The number of integers lying between $\frac{3}{5}$ and $\frac{8}{7}$ is .....

ⓐ 0 ⓑ 1 ⓒ 2 ⓓ infinite number

3 $0.\dot{5}\dot{7}$ = ...

ⓐ $\frac{57}{100}$ ⓑ $\frac{75}{99}$ ⓒ $\frac{575}{1000}$ ⓓ $\frac{19}{33}$

2 Complete : (3 marks)

1 If $\frac{x+4}{x-3}$ is not a rational number , then $x-2$ = ...

2 The additive inverse of the number $\left(-\frac{2}{7}\right)^0$ is .....

3 The additive identity element in $\mathbb{Q}$ is .....

3 Find two rational numbers that lie between $\frac{1}{5}$ and 0.25 (2 marks)

4 Put each of the following numbers in the simplest form : $-\frac{45}{20}$, $\frac{132}{88}$ (2 marks)

Test 1

Total mark 10

1 Choose the correct answer from the given ones : (3 marks)

1 The obtuse angle supplements ..... angle.

(a) acute (b) obtuse (c) right (d) zero

2 If $\angle X \equiv \angle Y$ where $\angle X$ and $\angle Y$ are two complementary angles , then m ($\angle X$) = ...

(a) 45° (b) 90° (c) 135° (d) 180°

3 If m ($\angle A$) = 100° , then m (reflex $\angle A$) = ...

(a) 80° (b) 200° (c) 260° (d) 360°

2 Complete : (3 marks)

1 If two straight lines intersect , then every two vertically opposite angles are .....

2 The two adjacent angles formed by a straight line and a ray with a starting point on this straight line are .....

3 The sum of measures of the accumulative angles at a point equals .....°

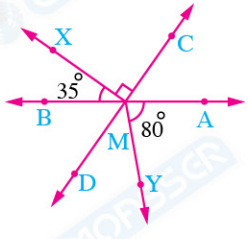
3 In the opposite figure : (2 marks)

$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, m ($\angle CMX$) = 90°

, m ($\angle XMB$) = 35° , m ($\angle AMY$) = 80°

Find : 1 m ($\angle AMD$)

2 m ($\angle BMY$)



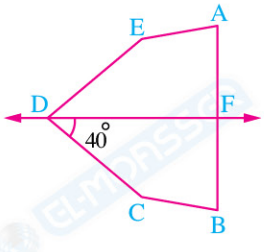
4 In the opposite figure : (2 marks)

F $\in \overline{AB}$, the figure AFDE ≡ the figure BFDC

, AB = 12 cm. , AE = BC = 5 cm.

, ED = CD = 8 cm. , m ($\angle CDF$) = 40°

Find : 1 m ($\angle CDE$) 2 The length of $\overline{BF}$



Test 2

Total mark 10

1 Choose the correct answer from the given ones : (3 marks)

1 The two bisectors of two adjacent supplementary angles .....

(a) are perpendicular. (b) are parallel.

(c) are coincident. (d) included an acute angle between them.

2 The sum of measures of 4 accumulative angles at a point ..... the sum of measures of 5 accumulative angles at point.

(a) = (b) < (c) > (d) ≠

3 If $\overrightarrow{BA} \perp \overrightarrow{BC}$, then m (∠ ABC) = ...

(a) 40° (b) 90° (c) 180° (d) 360°

2 Complete : (3 marks)

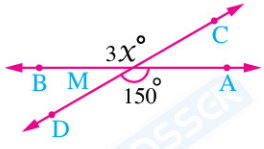
1 The two supplementary equal angles , the measure of each one is .....°

2 **In the opposite figure :**

If $\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$

, m (∠ AMD) = 150°

, then $\mathcal{X}$ = ...°



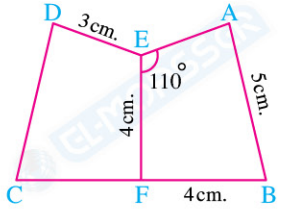
3 If $\overline{XY} \equiv \overline{XZ}$, then $\frac{XZ}{XY}$ = ...

3 In the opposite figure : (2 marks)

If F ∈ $\overline{BC}$, the figure ABFE ≡ the figure DCFE

Find : 1 m (∠ EFB)

2 The perimeter of the figure ABCDE



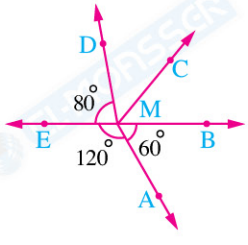
4 In the opposite figure : (2 marks)

m (∠ AMB) = 60° , m (∠ AME) = 120°

, m (∠ EMD) = 80° , $\overrightarrow{MC}$ bisects ∠ BMD

Find : 1 m (∠ CMD)

2 m (∠ AMC)



Answers of Test 1

1 1 (c) 2 (a) 3 (a)

2 1 -25 2 $\frac{-6}{7}$ 3 5

3 $\left(\frac{3}{8}-\frac{1}{2}\right)+\left(\frac{-3}{4}\right)$

Since L.C.M of 8 , 2 , 4 is 8

Then : $\left(\frac{3}{8}-\frac{1\times4}{2\times4}\right)+\left(\frac{-3\times2}{4\times2}\right)=\left(\frac{3}{8}-\frac{4}{8}\right)+\left(\frac{-6}{8}\right)=\frac{3-4-6}{8}=\frac{-7}{8}$

4 $\frac{-3}{4}=\frac{-3\times2}{4\times2}=\frac{-6}{8}$

$\frac{-3}{4}=\frac{-3\times3}{4\times3}=\frac{-9}{12}$

$\frac{-3}{4}=\frac{-3\times4}{4\times4}=\frac{-12}{16}$ (There are other solutions)

Answers of Test 2

1 1 (d) 2 (b) 3 (d)

2 1 1 2 -1 3 zero

3 $0.25=\frac{1}{4}$

L.C.M of the denominators is 20

Then $\frac{1}{5}=\frac{4}{20}$, $\frac{1}{4}=\frac{5}{20}$

, since $\frac{4}{20}=\frac{12}{60}$, $\frac{5}{20}=\frac{15}{60}$

Then the two numbers are : $\frac{13}{60}$, $\frac{14}{60}$

4 $-\frac{45\div5}{20\div5}=-\frac{9}{4}$

$\frac{132\div11}{88\div11}=\frac{12\div4}{8\div4}=\frac{3}{2}$

Answers of Test 1

1 1 (a) 2 (a) 3 (c)

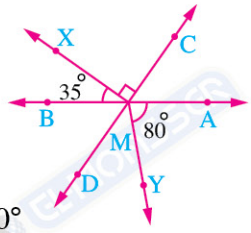
2 1 equal in measure 2 supplementary 3 360°

3 m (∠ BMD) = 180° – (35° + 90°) = 55°

because : m (∠ BMD) + m (∠ BMX) + m (∠ XMC) = 180°

, m (∠ DMY) = 180° – (55° + 80°) = 45°

because : m (∠ BMD) + m (∠ DMY) + m (∠ YMA) = 180°

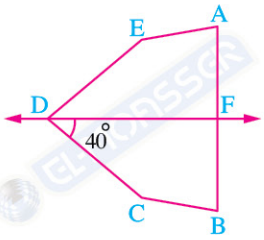


1 m (∠ AMD) = 80° + 45° = 125° 2 m (∠ BMY) = 45° + 55° = 100°

4 1 Since : The figure AFDE ≡ The figure BFDC

Then : m (∠ EDF) = m (∠ CDF) = 40°

, m (∠ CDE) = 40° + 40° = 80°



2 Since : BF = FA = $\frac{1}{2}$ AB , then BF = 12 ÷ 2 = 6 cm.

Answers of Test 2

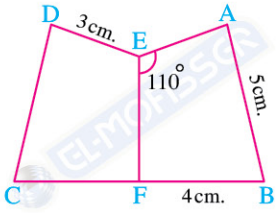
1 1 (a) 2 (a) 3 (b)

2 1 90° 2 50° 3 1

3 1 m (∠ EFB) = 90°

because : m (∠ EFB) = m (∠ EFC) , m (∠ EFB) + m (∠ EFC) = 180°

Then : m (∠ EFB) = 180° ÷ 2 = 90°



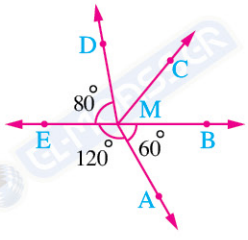
2 The perimeter of ABCDE = AB + BC + CD + DE + EA

= 5 + 8 + 5 + 3 + 3 = 24 cm.

4 1 m (∠ BMA) + m (∠ AME) + m (∠ EMD) + m (∠ DMB) = 360°

Then : m (∠ DMB) = 360° – [60° + 80° + 120°] = 100°

Then : m (∠ CMD) = m (∠ CMB) = 100° ÷ 2 = 50°



2 m (∠ AMC) = m (∠ AMB) + m (∠ BMC) = 60° + 50° = 110°

Exam (1)

1	*If* $\frac{x+3}{x-7} = 0$ *, then the value* of x *is* ..... (3 , −7 , −3 , 7)
2	*if* $\frac{\lvert x \rvert}{5} = 3$ *, then* $x =$ ..... (5 , 10 , 15 , ±15)
3	*if half of a number is* 30 *, then* $\frac{3}{4}$ *of this number is* ..... (48 , 42 , 40 , 45)
4	*If* $\frac{a}{b} = 60$ *, then* $\frac{a}{3b}$ = ...
5	$\frac{4}{5}$ = ...%
6	*The multiplicative inverse of* $\frac{-7}{5}$ *is* .....
7	*Use the distribution property to find :* $\frac{5}{17} \times 10 + \frac{5}{17} \times 23 + \frac{5}{17}$ ....
8	*find three rational numbers between :* $\frac{3}{5}$, $\frac{1}{4}$ ....

10

Exam (2)

1	the multiplicative inverse of $0.\dot{4}$ in the simplest form is ..... ($\frac{4}{9}$, $\frac{9}{4}$, $\frac{2}{5}$, $\frac{5}{2}$)
2	$\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} \times \ldots\ldots\ldots \times \frac{99}{100}$ = ... ($\frac{1}{2}$, $\frac{3}{4}$, $\frac{99}{100}$, $\frac{1}{100}$)
3	If $5a = 45$, $ab = 1$, then b = ... ($\frac{1}{9}$, 5 , $\frac{1}{5}$, 9)
4	If $\frac{a}{b} = 0$, then $3ab$ = ... (such that $b \neq 0$)
5	The number $\frac{x+3}{x-7}$ is rational number if $x \neq$ .....
6	The multiplicative inverse of $1\frac{2}{3}$ is .....
7	Use the distribution property to find : $\frac{27}{16} \times \frac{11}{7} + \frac{27}{16} \times \frac{11}{7} - \frac{27}{16} \times \frac{6}{7}$ ....
8	find 2 rational numbers lying between : $\frac{1}{2}$ and $\frac{4}{3}$, one of them is rational , the other is an integer ....

10

Exam (3)

1	The additive inverse of the number $\frac{1}{3}$ is ..... ($\frac{3}{10}$, 0.3 , 3 , $-0.\dot{3}$)
2	The necessary condition to make $\frac{7}{2x-10}$ a rational number if $x \neq$ ..... (-7 , 5 , -5 , 10)
3	The multiplicative inverse of the number ..... Is itself (-1 , 0 , 2 , 3)
4	$2\frac{1}{5} \times$ ..... $= 1$
5	If $x + \frac{3}{x} = 4 + \frac{3}{4}$, then x = ...
6	The additive inverse of the number $\lvert -\frac{2}{3} \rvert$ is .....
7	Use the distribution property to find : $\frac{3}{7} \times 2 + \frac{3}{7} \times 6 - \frac{3}{7}$ ....
8	if $x = \frac{-1}{3}$, $y = \frac{3}{4}$ and $z = -3$, find the vaue of $xy - yz$ ....

10

Exam (4)

1	If $\frac{x}{y}=\frac{2}{3}$, then $\frac{3x}{2y}$ = ...	($\frac{1}{5}$, $\frac{3}{2}$, $\frac{9}{4}$, 1)
2	If $a \times \frac{b}{3} = \frac{a}{3}$,then b = ...	($\frac{a}{3}$, 0 , a , 1)
3	The multiplicative inverse of $\left(\frac{1}{2}\right)^0$ is	(2 , −2 , 1 , −1)
4	if $\frac{a}{b}=\frac{1}{2}$, then $2a-b$ = ...	(1 , 0 , 3 , −1)
5	The number 1.25 in the form of $\frac{a}{b}$ is	
6	The additive inverse of $\left(\frac{-3}{5}\right)^0$ is	
7	Find two rational numbers between $\frac{2}{3}$ and $\frac{3}{7}$	
8	Use the properties of addition of rational numbers to calculate the value of $\frac{5}{4}-\left(-\frac{13}{5}\right)+\frac{15}{4}-\frac{3}{5}$	

10

Exam (5)

1	$\left\|-\frac{3}{5}\right\|$ ..... *zero* ($<$, $=$, $>$, $\leq$)
2	..... *Is a terminating decimal* ($\frac{7}{20}$, $\frac{2}{11}$, $\frac{7}{11}$, $\frac{1}{3}$)
3	*if* $2x = 10$ *, then* $\frac{3}{5}\ x =$ ..... (25 , 15 , 5 , 3)
4	*The rational number which hasn't a multiplicative inverse is* .....
5	*The additive identity element in* $\mathbb{Q}$ *is* .....
6	*If* $\frac{x}{y} = 1$ *, then* $5x - 5y$ = ...
7	*Use the properties of addition of rational numbers to calculate the value of* $\frac{5}{4} + \left(-\frac{13}{5}\right) + \left(\frac{-25}{4}\right) + \frac{28}{5}$ ....
8	*Find Three rational numbers that lie between* $\frac{1}{2}$ *and* $\frac{1}{3}$ ....

10

Exam (6)

1	if $\frac{7}{4x}$ is a rational number , then $x \neq$ ..... (4 , zero , -4 , -7)
2	$\frac{7}{5} >$ ..... ($\frac{14}{5}$, $\frac{14}{10}$, $\frac{5}{7}$, $\frac{21}{15}$)
3	the rational number $\frac{a}{b}$ is positive if ..... ($ab > 0$, $ab < 0$, $a + b = 0$, $a > b$)
4	if $\frac{2}{5}\ x = 10$, then $\frac{4}{5}\ x =$ ..... (25 , 15 , 20 , 5)
5	$\frac{-3}{5} + A = 0$ then $A =$ .....
6	The number $y + 5$ hasn't a multiplicative inverse , then $y =$ .....
7	if $x = \frac{3}{2}$, $y = -\frac{1}{4}$ and $z = -2$, find the value of $(x + z) \div (y - z)$ ....
8	Using the distribution property : $\frac{2}{11} \times 7 + \frac{2}{11} \times 5 - \frac{2}{11}$ ....

10

Exam (7)

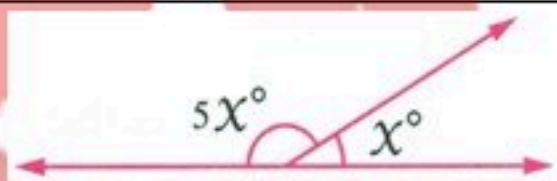
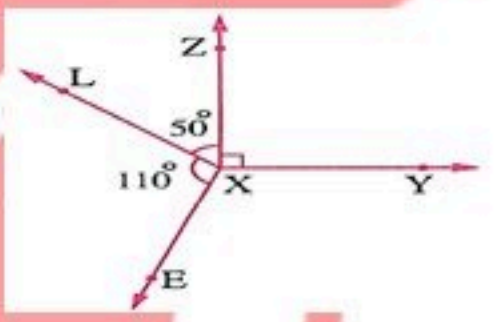
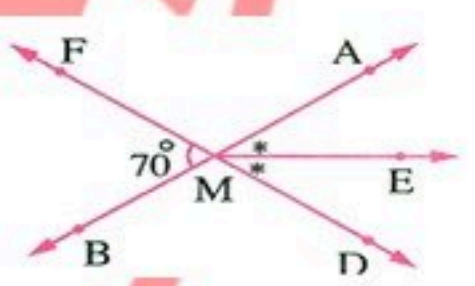
1	The number of all rational numbers that exist between $\frac{2}{5}$ and $\frac{4}{5}$ is ..... (1 , 2 , 3 , infinite number)
2	The number $0.5\dot{7}$ as a rational number ..... ($\frac{5}{9}$, $\frac{19}{33}$, $\frac{3}{7}$, $\frac{2}{3}$)
3	$\left\|\frac{-2}{3}\right\|$ ..... zero (> , < , = , ≤)
4	if $\frac{x+1}{x-5} \in \mathbb{Q}$, then $x \neq$ .....
5	if the rational number $\frac{x-1}{x+5} = 0$, then $x =$ .....
6	The additive inverse of $\left(\frac{-2}{3}\right)^2$ is .....
7	if $x = \frac{2}{3}$ and $y = -\frac{4}{3}$, find the value of $\frac{x+y}{x-y}$ ....
8	Arrange in a descending order : $-\frac{1}{10}$, $\frac{4}{15}$, -2 , $-\frac{3}{5}$ ....

10

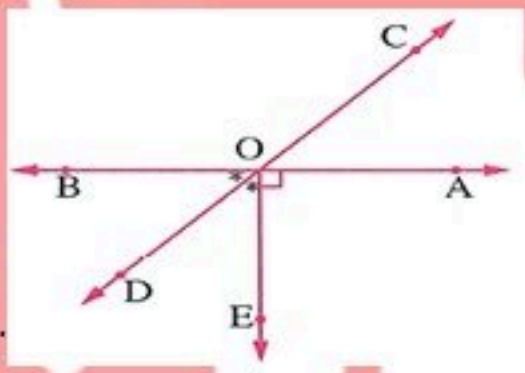
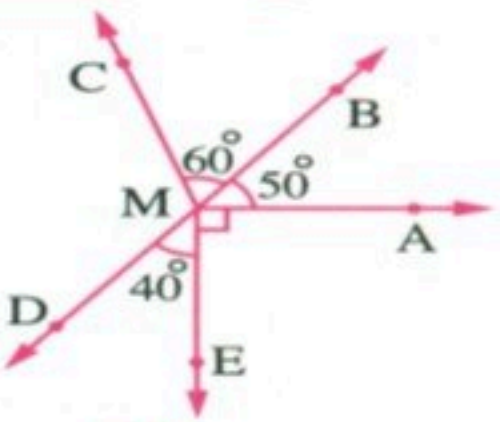
Exam (8)

1	*The rational* $\frac{x}{-3}$ *is positive if* x ..... (< 0 , > 0 , ≤ 0 , ≥ 0)
2	*if* $\frac{a}{7} > \frac{b}{9}$, *then* $9a$ ..... $7b$ ($>$, $<$, $\leq$, $=$)
3	*the multiplicative inverse of the number* $3\frac{2}{5}$ *is* ..... ($-3\frac{2}{5}$, $3\frac{2}{5}$, $\frac{17}{5}$, $\frac{5}{17}$)
4	*The multiplicative identity element in* $\mathbb{Q}$ *is* .....
5	*the number* $\frac{x-4}{x+4}$ *is a rational number if* x .....
6	*if* $\frac{a}{b} = \frac{1}{2}$, then $2a - b$ = ...
7	*if* $a = \frac{7}{4}$, $b = -\frac{1}{2}$, *find the value of the expression* : $(a - b) + (a + b)$ ....
8	*Using the distribution property* : $\frac{18}{5} \times \frac{25}{9} + \left(-\frac{3}{7}\right) \times \frac{25}{9}$ ....

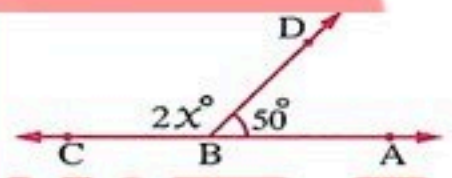
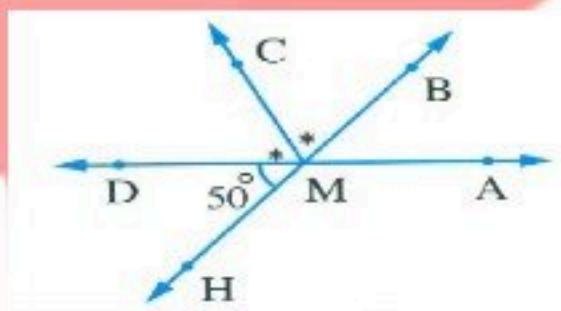
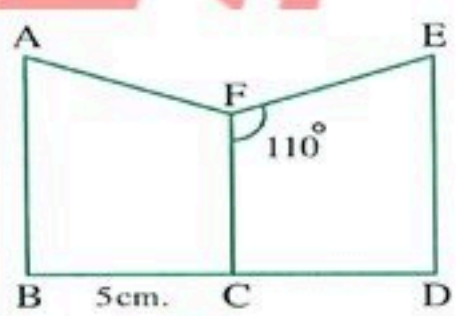
10

1	***The measure of each of two equal complementary angles equals*** ..... ***(180° , 45° , 360° , 90°)***
2	***If two straight lines intersect , then each two ..... angles have the same measure*** ***(vertically opposite , adjacent , alternate , corresponding)***
3	***If $\Delta ABC \equiv \Delta LMN$, then $m(\angle ACB) = m(\angle .....)$*** ***(LMN , MLN , LNM , NLM)***
4	***the value of x = ...*** 
5	***if $\angle X$ supplements $\angle Y$ and $m(\angle X) = \frac{1}{2} m(\angle Y)$, then $m(\angle Y)$ = ...***
6	***if $\angle A \equiv \angle B$, then $m(\angle A) - m(\angle B)$ = ...***
7	$m(\angle YXZ) = 90°$, $m(\angle ZXL) = 50°$ and $m(\angle LXE) = 110°$ **Find with giving the reason :** $m(\angle YXE)$  ....
8	$\overleftrightarrow{AB} \cap \overleftrightarrow{DF} = \{M\}$, $\overrightarrow{ME}$ bisects $\angle AMD$, $m(\angle FMB) = 70°$ **Find :** (1) $m(\angle AMF)$ (2) $m(\angle AMD)$ (3) $m(\angle DME)$  ....

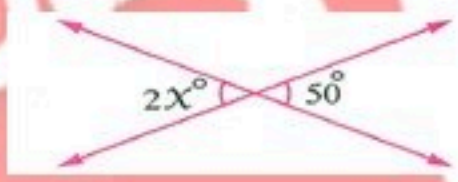
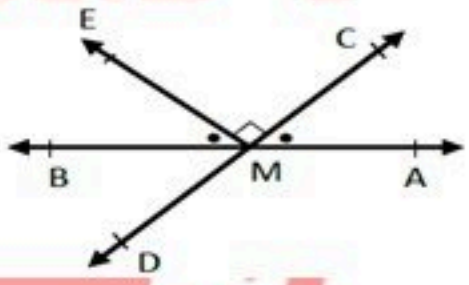
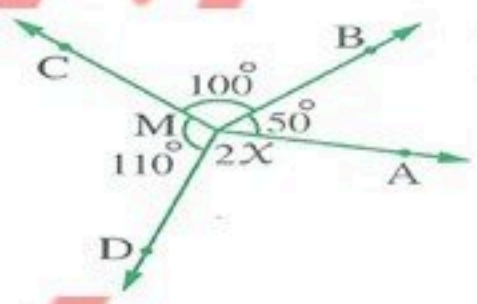
Exam (2)

1	$\overrightarrow{AB} \cup \overrightarrow{AC}$ = ... ($\overrightarrow{AB}$, $\angle ABC$, $\angle BAC$, $\emptyset$)
2	***Two adjacent angles formed by a straight line and a ray with a starting point on this straight line are .....*** ***(equal in measure , complementary , supplementary , adjacent)***
3	***if AB = CD , then AB ..... CD*** ***(= , bisects , $\perp$, $\equiv$)***
4	***If the two adjacent angles are complementary , then their outer sides .....***
5	***If m ($\angle A$) = 125° , then m (reflex $\angle A$) = ...***
6	***Two angles are congruent if .....***
7	$\overrightarrow{OD}$ bisects $\angle BOE$, $\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{O\}$, m ($\angle AOE$) = 90° **Find :** m ($\angle AOC$) .... 
8	***find m ($\angle CMD$)*** .... 

Exam (3)

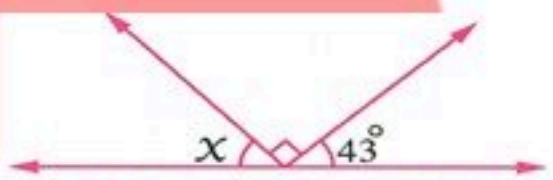
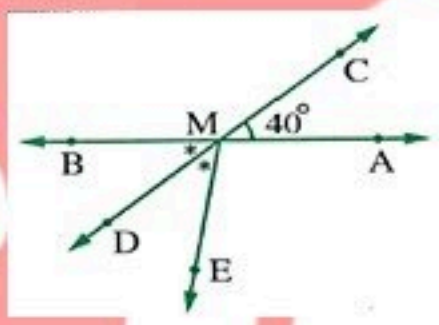
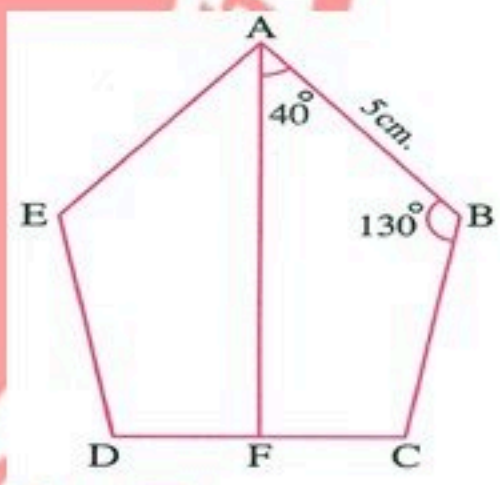
1	***the angle of measure 70 is vertically opposite to an angle of measure ..... (20 , 110 , 70 , 360)***
2	$m(\angle A) + m(reflex \angle A) =$ ..... (360 , 180 , 45 , 360)
3	***the two angles of measures 40 , 50 are ..... (complementary , supplementary , reflex , obtuse)***
4	$\overleftrightarrow{AC} \cap \overrightarrow{BD} = \{B\}, m(\angle ABD) = 50$ $m(\angle DBC) = 2x$, then $x =$ ..... 
5	***The two line segment are congruent if .....***
6	***the measure of each of the two equal complementary angles = ...***
7	$AD \cap BH = \{M\}, m(\angle HMD) = 50$, ***MC bisects*** $\angle BMD$ $find: m(\angle AMC)$  ....
8	The polygon ABCF ≡ the polygon EDCF , m (∠ EFC) = 110° , BC = 5 cm. **Find :** 1 m (∠ AFC) , m (∠ AFE) , m (∠ FCB) 2 The length of $\overline{BD}$  ....

Exam (4)

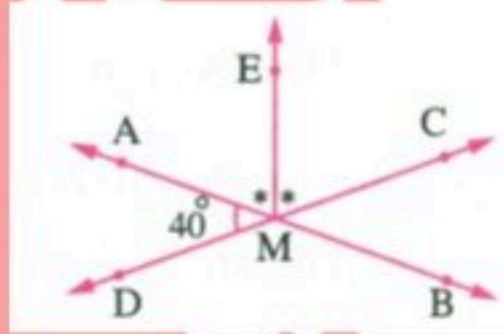
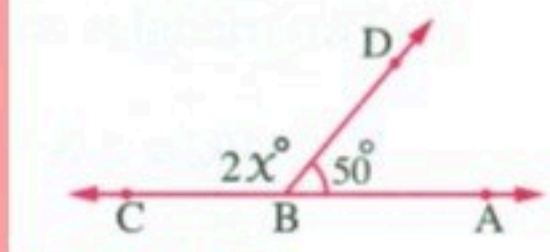
1	***The sum of measures of accumulative angles at point equal the sum of measures of ..... angles*** ***(360 , 4 right , 90 , 5 right)***
2	***if ∠A complements ∠B , ∠B supplements ∠C , m (∠A) = 35 , then m (∠C) = ...*** ***(55 , 145 , 125 , 130)***
3	***If m (∠X) = 2 m (∠Y), ∠X and ∠Y are two supplementary angles then m (∠Y) = ...*** ***(90° , 120° , 30° , 60°)***
4	***the value of x = ...*** 
5	***if ∠X ≡ ∠Y , ∠X , ∠Y are supplementary angles , then m (∠X) = ...***
6	***the acute angle complements ..... angle***
7	$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{ M \}$, m (∠ CME) = 90°, m (∠ AMC) = m (∠ EMB) Find: m (∠ AMC) , m (∠ BMD) , m (∠ AMD)  ....
8	***find the value of x (give the reason)*** .... 

10

Exam (5)

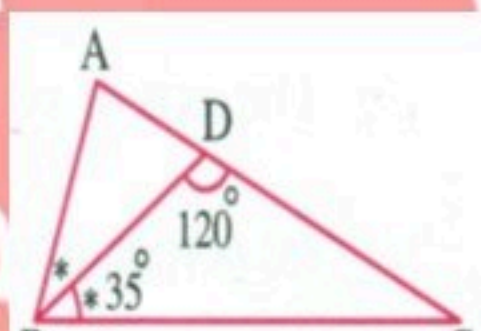
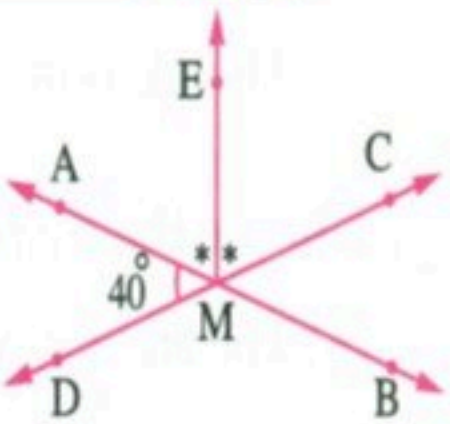
1	***if*** $\angle A$ ***complements*** $\angle B$, $\angle B$ ***complements*** $\angle C$, ***then*** $m(\angle A)$ ..... $m(\angle C)$ ($>$, $<$, $=$, $\leq$)
2	***if*** $\overline{XY} \equiv \overline{AB}$, $XY = 5cm$, ***then*** $XY + 3AB =$ ..... (5 , 20 , 15 , 30)
3	***Two complementary angles are two angles whose sum of their measures is*** ..... (90° , 180° , 100° , 45°)
4	***the value of*** $x =$ ..... 
5	***If*** $\Delta ABC \equiv \Delta XYZ$, $m(\angle A) + m(\angle B) = 115^\circ$, ***then*** $m(\angle Z) =$ .....
6	***The sum of measures of the accumulative angles at a point*** = ...
7	$\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, m ($\angle$ AMC) = 40° and $\overrightarrow{MD}$ bisects $\angle$ BME **Find :** m ($\angle$ AME) 
8	The figure ABCF $\equiv$ the figure AEDF m ($\angle$ AFC) = 90° , AB = 5 cm. **Complete :** (1) m ($\angle$ BAE) = ...° (2) AE = ... cm. (3) m ($\angle$ EDF) = m ($\angle$ .....) 

Exam (6)

1	$\overline{XY}$ ..... $\overleftrightarrow{XY}$ (∈ or ⊂ or ∉ or ⊄)
2	*The acute angle supplements ..... angle* *(an obtuse , an acute , a reflex)*
3	*the ratio between the measures of two supplementary angles is* $4:5$ *, then the measure of the greater angle is .....* (80 , 90 , 100 , 120)
4	*The whose measure is more than* 90° *and less than* 180° *is ..... angle*
5	*If* $\Delta ABC \equiv \Delta XYZ$ *,* $m(\angle B) = 80^\circ$ *,* $m(\angle Z) = 40^\circ$ *, then* $m(\angle A)$ = ...
6	*If the two adjacent angles are supplementary , then their outer sides* .....
7	*Find* $m(\angle AME)$, $m(\angle BMC)$ .... 
8	*Find the value of* x  ....

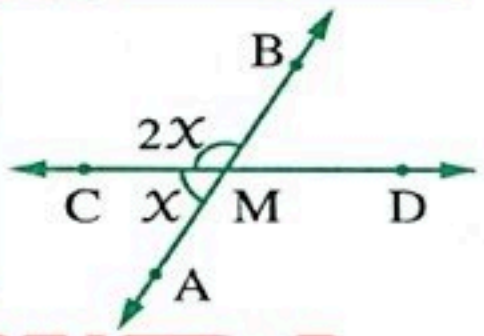
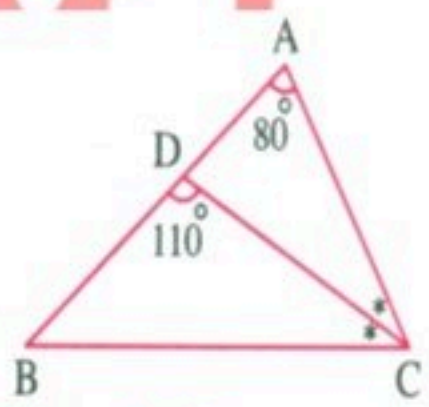
10

Exam (7)

1	*if* $\overline{BC} \equiv \overline{XY}$ *, then* $BC \div XY =$ ..... (2 , *zero* , 1 , XY)
2	*ABCD is a rectangle , then* $BC \equiv$ ..... ($\overline{AC}$, $\overline{BD}$, $\overline{AD}$, $\overline{DC}$)
3	*The two bisector of two adjacent supplementary angles* ..... (*parallel* , *perpendicular* , *coincident* , *congruent*)
4	*The type of the angle of measure* $179^\circ\ 60'$ *is* .....
5	*If the two outer sides of two adjacent angles are on the same straight line , then these two adjacent angles are* .....
6	*if C is the mid point of* $\overline{AB}$ *, then* $\overline{AC} \equiv$ .....
7	*Find* $m(\angle A)$ .... 
8	*find* $m(\angle AME), m(\angle BMC)$ .... 

10

Exam (8)

1	if $\angle X$ supplements $\angle Y$, $m(\angle X) = 60$, then m (reflex $\angle Y$) = ... (120 , 180 , 240 , 300)
2	The measure of the supplement of the angle whose measure 30° = ... (60° , 180° , 90° , 150°)
3	If $\overline{AB} \equiv \overline{CD}$ and $AB = 4$ cm., then $AB + 2CD$ = ... Cm. (10 , 4 , 8 , 12)
4	If $\angle B$ complement $\angle A$ and $\angle B \equiv \angle A$, then $m(\angle B)$ = ...
5	the reflex angle is the angle whose measure is more than ..... and less than .....
6	if $\overleftrightarrow{AB} \cap \overleftrightarrow{CD} = \{M\}$, then x = ... 
7	find $m(\angle ABC)$ .... 
8	find $m(\angle EMD)$ ....